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09/752,355	12/29/2000	James E. Pricer	9226	8429
<div>26890      7590      02/13/2008</div> <div>JAMES M. STOVER TERADATA CORPORATION 2835 MIAMI VILLAGE DRIVE MIAMISBURG, OH 45342</div>				
			<div>EXAMINER</div> <div>STRANGE, AARON N</div>	
			<div>ART UNIT</div> <div>2153</div>	<div>PAPER NUMBER</div>
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/752,355

Applicant(s)

PRICER ET AL.

Examiner

Aaron Strange

Art Unit

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. The declaration under 37 CFR § 1.132, filed 10/31/07, is insufficient to overcome the rejection of claims 1-24 based upon the combination of Muret, Tsuchida and Miller as set forth in the last Office action.

2. As an initial matter, it is noted that ¶6-9 of the declaration merely repeats Applicant's argument that there is no motivation to combine Muret with Tsuchida and that the combination would not provide "a parallel processing database system configured for tracking the activities of an Internet user corresponding to a single session". The Examiner respectfully disagrees with these assertions, and these issues have already been settled in the BPAI decision of 6/19/2006, which affirmed the Examiner's decision regarding the combination of Muret and Tsuchida. Accordingly, these assertions are not persuasive, and will not be discussed in further detail.

3. In ¶12-17 of the declaration, Applicant acknowledges that the MDIFF function disclosed by Miller is old and well-known in the art, and that Applicant was aware of this functionality at the time the present application was filed.

Applicant also refers to a document (Teradata RDBMS SQL Reference - Volume 5 Functions, V2R4.0, B035-1101-060A), that provides some usage examples for the MDIFF function. While Applicant asserts that the document was attached to the declaration, it is not currently present in the file, so these arguments are also

unpersuasive. However, in the interest of expedited prosecution, the Examiner has located a later version (June 2001) of what appears to be the same document, and will refer to this version of the document below. Applicant should re-submit the referenced document in order to have it considered by the Examiner.

4. In ¶18-19 of the declaration, Applicant asserts that "the use of the MDIFF in the claimed invention is the very opposite of the description of MDIFF in the Teradata manual and Miller" because, in the claimed invention, "time is the variable". Applicant elaborates on this point, stating that "the Teradata manuals taught away from this type of use" because "the [Teradata] manual provides that MDIFF was designed to compare activity for some variable across fixed times (e.g., monthly, weekly or quarterly); not to consider time itself as the variable.

However, nothing in the Teradata manual states or even suggests that the MDIFF function was "designed" for any particular purpose, and the description of the function is very generic, stating that it "[r]eturns the moving difference between the current row-column value and the preceding nth row-column value" (p. 7-29). While the manual provides some examples of how to calculate "common business metric[s]" (p. 7-30), one of ordinary skill in the art would have readily recognized that the MDIFF function could have been used in any system having a need to compare "a current row-column value and the preceding nth row-column value".

5. Finally, in ¶19 of the declaration, Applicant asserts that "utilizing the moving difference functionality in a parallel plural processing database management system provides unexpected results when applied in the context of tracking Internet activity". However, Applicant has provided no evidence of these unexpected results, and has failed to even identify what unexpected results were produced. Applicant provides some description of "benefits" of the claimed invention, but has failed to show if/how these "benefits" are unexpected. Unexpected results must be established by factual evidence. Assertions of unexpected results constitute mere argument. *See In re De Blauwe*, 736 F.3d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984).

6. Applicant's declaration has failed to provide sufficient facts to overcome the rejection set forth under 35 U.S.C. § 103(a), and amount to little more than argument. In view of the foregoing, when all of the evidence is considered, the totality of the rebuttal evidence of nonobviousness fails to outweigh the evidence of obviousness.

7. Regarding Applicant's arguments that "neither Muret nor Tsuchida, taken singly or in combination, discloses a method or database system where (i) data from a plurality of transaction logs of a plurality of Internet servers is loaded into a database system managed by plural parallel processing modules, and (ii) a database query is executed across the parallel processing module using a moving difference database management function to identify a user's clickstream" (Remarks, 10-11), the Examiner respectfully disagrees. Applicant's arguments attack the references individually, and one cannot

show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

All features of the claimed invention, except the use of "a moving difference database function" are taught by Muret and/or Tsuchida, as discussed in numerous previous Office actions and the BPAI decision of 6/19/2006. Miller, teaches the use of a moving difference database function (MDIFF function), as admitted by Applicant (Declaration of 10/31/07, ¶12). All elements of the claimed invention are taught by the prior art. Applicant's claimed invention has merely taken these prior art elements, and combined them using known methods. "The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Leapfrog Enter., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (quoting *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1739 (2007)).

### ***Specification***

8. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification fails to provide proper antecedent basis for the term "tangible storage medium", appearing in claims 6 and 23.

***Claim Rejections - 35 USC § 101***

9. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. Claims 11-15 and 24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

11. Claims 11-15 and 24 recite a system claim comprising a plurality of "facilities" and "modules" for performing various functions. The specification of the present application discloses that "the various implementations of the invention are realized in ... computer software". This disclosure would have suggested to one of ordinary skill in the art that the claimed systems are intended to include software-only embodiments. Since the claim is not limited to statutory subject matter, it is non-statutory.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. In the interest of expedited prosecution, the Examiner would like to note that several of the present claims (i.e., claims 11-15 and 24) use functional language to describe claim elements. For example, the terms "for use in" and "configured to" raise questions as to the limiting effect of the functional language that follows them. The Examiner recommends amending the claims to contain positive recitations of the actions performed by the claim elements, rather than merely stating that the elements are "for use in" or "configured to" perform some future act. In the event that a hardware element is intended to contain software, which when executed, causes the hardware element to perform a function, the language of the claim should clearly express that relationship.

In the interest of expedited prosecution, all of these limitations have been rejected below, but Applicant is encouraged to amend the system claims so that the claimed functions are positively recited, to ensure that those limitations may be given patentable weight.

14. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muret et al. (US 2002/0042821) in view of Tsuchida et al. (US 6,026,394) in further view of Miller et al. (WO 00/20998).

15. With regard to claim 1, Muret et al. disclose a method for use in tracking the actions of an Internet user, comprising:



loading data from a plurality of transaction logs of a plurality of Internet servers into a database system (log engine loads log files into a table for processing) (§51, Lines 1-2 and §57), where the data includes an entry for each request to the Internet server (§51, Lines 4-6), including information identifying the which user submitted the request (§71, Lines 7-10) and information identifying the time at which the request was received (§55, Lines 1-5); and

selecting from the data all entries associated with a particular user and corresponding to a single session of that user (§71). Muret et al. fails to disclose that the database system is managed by plural parallel processing modules or executing a database query across the plural parallel processing modules using a moving difference database management function to select the entries from the data.

Tsuchida et al. teach the use of plural parallel processing modules as a means to decrease the time required to search a database (Col 2, Lines 54-58). Tsuchida discloses a plurality of parallel processing modules including distribution nodes, join nodes, and decision management nodes (Col 2, Line 59 to Col 3, Line 18). These nodes distribute the workload related to the query process, and work on it in parallel to achieve a result faster.

Miller discloses a similar system for retrieving data from a database. Miller teaches using a moving difference database function to produce determine a moving difference for data in a sorted list. This would have been an advantageous addition to the system disclosed by Muret since it would have allowed the user to use a single

function to easily locate all entries in the database that are time stamped within a defined range, such as the 30 minutes taught by Muret (¶71).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use plural parallel processing modules in the database system to select the entries for a particular user from the data and extract the entries from a the database using a moving difference database function. These additions would have been advantageous since it they have greatly sped up the process of sorting through the data to select the desired entries.

16. With regard to claim 2, Muret et al. further disclose that the step of selecting includes selecting entries with time stamps lying in a predetermined range (¶71, Lines 10-13).

17. With regard to claim 3, Muret et al. further disclose that the step of selecting includes comparing time stamps of entries and selecting each entry for which the time stamp differs from the time stamp of another entry by less than a predetermined amount (¶71, Lines 10-13).

18. With regard to claim 4, Muret et al. further disclose that the step of selecting includes selecting each entry for which the time stamp differs from the time stamp of another entry by less than 30 minutes (¶71, Lines 10-13).

19. With regard to claim 5, Muret et al. further disclose sorting the selected entries chronologically to reconstruct the user's clickstream (§72, Lines 4-5).

20. With regard to claim 6, Muret et al. disclose a computer program for use in tracking the actions of an Internet user, the program comprising executable instructions that cause one or more computers to:

load data from transaction logs of a plurality of Internet servers into a database system (log engine loads log files into a table for processing) (§51, Lines 1-2 and §57), where the data includes an entry for each request to the Internet server (§51, Lines 4-6), including information identifying the which user submitted the request (§71, Lines 7-10) and information identifying the time at which the request was received §55, Lines 1-5); and

select all entries associated with a particular user and corresponding to a single session of that user (§71). Muret et al. fails to disclose that the database system is managed by plural parallel processing modules or executing a database query using a moving difference database management function across the plural parallel processing modules to select the entries from the data.

Tsuchida et al. teach the use of plural parallel processing modules as a means to decrease the time required to search a database (Col 2, Lines 54-58). Tsuchida discloses a plurality of parallel processing modules including distribution nodes, join nodes, and decision management nodes (Col 2, Line 59 to Col 3, Line 18). These

nodes distribute the workload related to the query process, and work on it in parallel to achieve a result faster.

Miller discloses a similar system for retrieving data from a database. Miller teaches using a moving difference database function to produce determine a moving difference for data in a sorted list. This would have been an advantageous addition to the system disclosed by Muret since it would have allowed the user to use a single function to easily locate all entries in the database that are time stamped within a defined range, such as the 30 minutes taught by Muret (§71).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use plural parallel processing modules in the database system to select the entries for a particular user from the data and extract the entries from a the database using a moving difference database function. These additions would have been advantageous since it they have greatly sped up the process of sorting through the data to select the desired entries.

21. With regard to claim 7, Muret et al. further disclose that, in selecting entries, the computer selects entries with time stamps lying in a predetermined range (§71, Lines 10-13).

22. With regard to claim 8, Muret et al. further disclose that, in selecting entries, the computer compares time stamps of entries and selects each entry for which the time

stamp differs from the time stamp of another entry by less than a predetermined amount (¶71, Lines 10-13).

23. With regard to claim 9, Muret et al. further disclose that, in selecting entries, the computer selects each entry for which the time stamp differs from the time stamp of another entry by less than 30 minutes (¶71, Lines 10-13).

24. With regard to claim 10, Muret et al. further disclose that the computer sorts the selected entries chronologically to reconstruct the user's clickstream (¶72, Lines 4-5).

25. With regard to claim 11, Muret et al. disclose a database system comprising:  
a plurality of data-storage facilities (database) (Fig 1, 300) for use in storing data received from transaction logs of a plurality of Internet server computers (¶51), where the data includes an entry for each request to the Internet server computers (¶51, Lines 4-6), including information identifying the which user submitted the request (¶71, Lines 7-10) and information identifying the time at which the request was received (¶55, Lines 1-5); and

one or more processing modules configured to manage the data stored in the data storage facilities (log engine) (¶57); and

a database-management component configured to select from the data all entries associated with a particular user and corresponding to a single session of that user (¶71). Muret et al. fails to disclose that the database system comprises plural

parallel processing modules or executing a database query across the plural parallel processing modules using a moving difference database management function to select the entries from the data.

Tsuchida et al. teach the use of plural parallel processing modules as a means to decrease the time required to search a database (Col 2, Lines 54-58). Tsuchida discloses a plurality of parallel processing modules including distribution nodes, join nodes, and decision management nodes (Col 2, Line 59 to Col 3, Line 18). These nodes distribute the workload related to the query process, and work on it in parallel to achieve a result faster.

Miller discloses a similar system for retrieving data from a database. Miller teaches using a moving difference database function to produce determine a moving difference for data in a sorted list. This would have been an advantageous addition to the system disclosed by Muret since it would have allowed the user to use a single function to easily locate all entries in the database that are time stamped within a defined range, such as the 30 minutes taught by Muret (¶71).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use plural parallel processing modules in the database system to select the entries for a particular user from the data and extract the entries from a the database using a moving difference database function. These additions would have been advantageous since it they have greatly sped up the process of sorting through the data to select the desired entries.

26. With regard to claim 12, Muret et al. further disclose that the database-management component is configured to select entries with time stamps lying in a predetermined range (§71, Lines 10-13).

27. With regard to claim 13, Muret et al. further disclose that the database-management component is configured to compare time stamps of entries and select each entry for which the time stamp differs from the time stamp of another entry by less than a predetermined amount (§71, Lines 10-13).

28. With regard to claim 14, Muret et al. further disclose that the database-management component is configured to select each entry for which the time stamp differs from the time stamp of another entry by less than 30 minutes (§71, Lines 10-13).

29. With regard to claim 15, Muret et al. further disclose that the database-management component is configured to sort the selected entries chronologically to reconstruct the user's clickstream (§72, Lines 4-5).

30. With regard to claim 16, Muret further discloses processing the data loaded into a single database table to extract each entry in the single database table the information identifying which user submitted the request (IP address) and the information identifying the time at which the request was received (timestamp) (at least §55).

31. With regard to claim 17, Muret further discloses storing the extracted information in a database table having multiple columns, one for the information identifying which user submitted the request, and another for the information identifying the time at which the request was received (each line is separated into several fields, including IP/session ID and timestamp) (at least ¶55 and 71).

32. With regard to claim 18, Muret further discloses that loading data into a single database table includes loading data into a table having a single column, where the single column includes a row for each entry in the one or more transaction logs of the one or more Internet servers (at least ¶51 and 55).

33. Claims 19-21 are rejected under the same rationale as claims 16-18, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

34. Claims 22-24 are rejected under the same rationale as claim 17, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.




***Conclusion***

35. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Strange whose telephone number is 571-272-3959. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AS  
2/6/08

  
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